



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/082,403	02/25/2002	David J. Luneau	10200-005001	3772
26161	7590	08/15/2005	EXAMINER	
FISH & RICHARDSON PC			TAYLOR, BARRY W	
P.O. BOX 1022			ART UNIT	
MINNEAPOLIS, MN 55440-1022			PAPER NUMBER	
			2643	

DATE MAILED: 08/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/082,403	Applicant(s) LUNEAU, DAVID J.	
	Examiner Barry W. Taylor	Art Unit 2643	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 June 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,4-16 and 18-31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,4-16 and 18-31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1, 4-15 and 20-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zitting et al (6,584,148 hereinafter Zitting) in view of Chin et al (6,744,867 hereinafter Chin).

Regarding claims 1, 20 and 26. Zitting teaches system and method for testing subscriber lines by using Remote Test Interface (see 36 figures 1 and 4). Zitting teaches the RTI detects start message sent from loop management device located at central office (see last paragraph column 8). Zitting also discloses the RTI recognizes other commands such as "open loop" and "short loop" commands (column 9) wherein "open loop" commands RTI to disconnect customer premises equipment via a terminal control device forming "open circuit" (182 figure 4, column 9). The "short loop" command is similar to "open loop" except processor controls termination device to form a "short circuit". Once open or short circuit formed, the central office may perform tests of the open or short circuit. Zitting further shows "generate signal" command may be sent by central office to RTI indicating that signal is to be generated by RTI enabling for insertion loss of cable connecting central office and CPE (column 10). Zitting teaches using "start test" signal sent from central office (see step 212 figure 5, columns 10-11).

According to Applicant's, Zitting fails to teach a frequency shift key used as the control command (see Applicants brief remark on page 1, paper dated 6/6/05).

Chin also teaches remote control of CPE equipment (title, abstract) wherein CPE interprets control messages in the form of GR-30 message format (columns 1-3). Chin discloses control messages are typically transmitted by means of FSK (col. 6 lines 59-60) allowing central office the ability to send FSK message to CPE to remotely control CPE to be in on-hook or off-hook state (columns 9-10). Chin discloses the advantage of using FSK control messages in the form of GR-30 message format is that it allows central office the ability to operate with any terminal (col. 4 lines 62-65, col. 10 lines 19-34).

Therefore, it would have been obvious for any one of ordinary skill in the art at the time the invention was made to utilize the teachings of Chin into the teachings of Zitting for the benefit of allowing central office the ability to remote control any terminal.

Regarding claim 4. Zitting teaches using TERMINATION CONTROL DEVICE (see item 182 figure 4).

Regarding claim 5. Zitting teaches processor located at Central Office (see item 116 figure 3).

Regarding claims 6-7. Zitting teaches using "length of time" to be used as test duration (col. 9 line 64).

Regarding claim 8. Zitting teaches the RTI detects start message sent from loop management device located at central office (see last paragraph column 8). Zitting further discloses the RTI recognizes other commands such as "open loop" and "short loop" commands (column 9) wherein "open loop" commands RTI to disconnect customer premises equipment via a terminal control device forming "open circuit" (182 figure 4, column 9). The "short loop" command is similar to "open loop" except processor controls termination device to form a "short circuit". Once open or short circuit formed, the central office may perform tests of the open or short circuit. Zitting further shows "generate signal" command may be sent by central office to RTI indicating that signal is to be generated by RTI enabling for insertion loss of cable connecting central office and CPE (column 10). Zitting teaches using "start test" signal sent from central office (see step 212 figure 5, columns 10-11).

Regarding claims 9-15. Zitting teaches using voltage detector for testing (see 120 figure 3, col. 7 lines 5-24, col. 11 lines 39-65).

Regarding claims 21 and 27. Zitting also shows the remote test interface (see 36 figure 1) at CPE.

Regarding claim 22-25 and 28-31. Zitting teaches modem (see 116 figure 3).

2. Claims 16 and 18-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zitting et al (6,584,148 hereinafter Zitting) in view of Posthuma (t,456,694).

Regarding claim 16. Zitting teaches system and method for testing subscriber lines by using Remote Test Interface (see 36 figures 1 and 4). Zitting teaches the RTI detects start message sent from loop management device located at central office (see last paragraph column 8). Zitting also discloses the RTI recognizes other commands such as "open loop" and "short loop" commands (column 9) wherein "open loop" commands RTI to disconnect customer premises equipment via a terminal control device forming "open circuit" (182 figure 4, column 9). The "short loop" command is similar to "open loop" except processor controls termination device to form a "short circuit". Once open or short circuit formed, the central office may perform tests of the open or short circuit. Zitting further shows "generate signal" command may be sent by central office to RTI indicating that signal is to be generated by RTI enabling for insertion loss of cable connecting central office and CPE (column 10). Zitting teaches using "start test" signal sent from central office (see step 212 figure 5, columns 10-11).

According to Applicant's, Zitting fails to teach reflected signals received back at central office (see page 2, paper dated 6/6/05).

Posthuma teaches a method for prequalifying subscriber line for DSL service (title, abstract) wherein reflected signals received in response to test single is analyzed for determining transmission characteristics of the subscriber line (abstract, col. 3 lines 9-17, col. 4 line 39 – col. 5 line 9). Posthuma discloses the benefit of using reflected signals is that service providers without physical access to subscriber line can perform test to determine if subscriber line qualifies for DSL service (columns 1-2).

Therefore, it would have been obvious for any one of ordinary skill in the art at the time the invention was made to utilize the teachings of Posthuma into the teachings of Zitting for the benefit of allowing service providers the ability to determine if subscriber loop qualifies for high speed service.

Regarding claim 18. Zitting teaches plurality of modem signals may be used (col. 8 lines 61-63, col. 10 lines 10-24). Posthuma also teaches plurality of signals maybe used (see bottom of column 4 continuing to column 5).

Regarding claim 19. Posthuma teaches the reflected signal received is analyzed or compared to empirical or simulated data stored in database to determine if subscriber loop can support DSL service (column 5).

Response to Arguments

3. Applicant's arguments with respect to claims 1, 16, 20 and 26 have been considered but are moot in view of the new ground(s) of rejection.

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Barry W. Taylor, telephone number (571) 272-7509, who is available Monday-Friday, 8am to 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Curtis Kuntz, can be reached at (571) 272-7499. The central facsimile phone number for this group is **571-273-8300**.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group 2600 receptionist whose telephone number is (571) 272-2600, the 2600 Customer Service telephone number is (571) 272-2600.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you

Art Unit: 2643

have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Centralized Delivery Policy: For patent related correspondence, hand carry deliveries must be made to the Customer Service Window (now located at the Randolph Building, 401 Dulany Street, Alexandria, VA 22314), and facsimile transmissions must be sent to the central fax number (571-273-8300).

A handwritten signature in black ink, appearing to read "Barry W. Taylor". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

Barry W. Taylor
Patent Examiner
Technology Center 2600
Art Unit 2643